



DOE Partnerships for Affordable Housing

A program to improve the energy efficiency and affordability of public and privately owned housing.



What Are Partnerships for Affordable Housing?

Partnerships for Affordable Housing help housing providers improve the energy efficiency and affordability of public and privately owned single-family and multifamily housing for low- and moderate-income families. The program establishes voluntary collaborations with other federal agencies, state and local governments, utilities, and the housing development and financing industries to meet the needs defined by local housing providers. Partnerships are designed to build lasting capabilities among housing managers for technical analysis, financial management, project development, and to apply proven technologies and practices in communities.



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Why Partnerships for Affordable Housing?

Partnerships for Affordable Housing have three major paybacks:

- Improving energy efficiency — and thereby reducing energy-related costs — can have a huge impact on the budgets of low-income families, for whom energy costs are commonly the largest single housing expense after food and shelter.
- Energy- and resource-efficient building designs and retrofits improve the comfort and living environment of homes.
- Relatively modest investments in improving the energy efficiency of housing can free operating funds for capital needs, improved maintenance, or other quality upgrades.

Did you know...

... Renovations by the Atlanta Housing Authority (AHA) in 17 high-rise public housing developments will reduce utility costs by up to 30% and will save 30-40% in water usage and related sewage bills. In low-rise housing, AHA maintenance staff have been trained in energy-efficiency practices.

... A Chicago resident about to move into a newly superinsulated building noted that whereas her heating bills had been \$1,200 per year, in her new apartment they would drop to \$200 per year.



Who Participates?

Any organization involved in providing low- or moderate-income housing:

- Public housing authorities — e.g., the Atlanta and Chicago Housing Authorities
- Nonprofit and private housing providers and advocates — e.g., Bethel New Life in Chicago, Habitat for Humanity, Global Green
- State and local governments — e.g., Texas State Energy Conservation Office
- Housing associations — e.g., National Association of Housing and Redevelopment Officials (NAHRO)
- Utilities — e.g., Commonwealth Edison in Northern Illinois
- Federal agencies — e.g., the U.S. Department of Housing and Urban Development (HUD)



Partnership Goals for the Year 2000

- Incorporate energy and resource efficiency in the retrofit and construction of over 1 million residential units
- Promote a comprehensive approach to energy- and resource-efficient design, construction, and operation of housing
- Help meet national energy efficiency goals and decrease emissions of greenhouse gases



Targeted Improvements

- Energy- and resource-efficient building designs
- Upgrades or retrofits in heating/cooling systems and insulation
- Water-conservation retrofits
- Energy-efficient appliances
- Energy-efficient maintenance and operations

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Approach

Community housing provider:

- Identifies candidate projects
- Provides an action plan and specifications
- Finances and installs energy efficiency improvements

Department of Energy:

- Provides a program representative to aid in defining energy-efficiency needs
- Assists in project planning and building performance
- Provides technical assistance

Third Parties:

- Provide technical and management support
- Provide capital investment and financing



Assistance to Partners

- Action planning
- Housing designs and specifications
- Building retrofit and rehabilitation
- Financing and performance contracting guidance
- Software simulation tools
- Housing inspection guide
- Building audit methods and guidelines
- Monitoring and verification
- Information on energy-efficient technologies
- Utility accounting and analysis
- Training of residents and staff
- Field-testing of promising technologies



MICHAEL MYERS, U.S. DEPARTMENT OF ENERGY



Partnerships in Progress

The Chicago Housing Authority (CHA)

Why: CHA pays almost \$45 million annually in utility costs in its approximately 41,000 public housing units. Housing residents and CHA are also concerned about lead hazards and job creation.

What: CHA is installing a low-cost composite wall system designed in DOE labs that improves insulation while encasing lead hazards. The wall system is simple enough in its installation to provide the potential of jobs for CHA residents. This energy-saving feature will reduce utility costs in housing without significantly increasing the cost of renovation.

Who: CHA, DOE, Louisiana-Pacific, Celotex, Argonne and Oak Ridge National Laboratories

ROBERT WENDT, OAK RIDGE NATIONAL LABORATORY



Habitat for Humanity

Why: Habitat for Humanity is one of the largest builders of new homes in the United States. It is working to minimize the negative environmental impact of its 3,000-homes-per-year building program.

What: Habitat for Humanity International hopes to improve energy efficiency and indoor living conditions by providing local affiliates with resource-efficient plans and specifications for standard affordable housing designs, along with technical bulletins describing specific energy-efficiency practices. Energy-efficiency practices that can easily be incorporated into the building process will be demonstrated during the 1997 and 1998 Jimmy Carter Work Projects and taught at multiple training sessions.

Who: Habitat for Humanity International, Oak Ridge National Laboratory, National Renewable Energy Laboratory, Florida Solar Energy Center, Southface Energy Institute, Virginia Housing and Environment Network, Global Green USA, National Association of Home Builders Research Center



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Other Partners

- The Atlanta Public Housing Authority, to improve energy efficiency and reduce water consumption in 14,700 units of public and assisted housing
- Commonwealth Edison, in an energy efficiency program initiated by the utility to assist in the rehabilitation of buildings for low- and moderate-income Chicago residents
- Bethel New Life in Chicago, to create energy-efficient affordable housing in low-income communities



How to Join

If your organization is interested in participating in the Partnerships for Affordable Housing, all you need to do is complete a Partnership agreement form, which asks you to

- take the lead in carrying out energy-efficiency improvements in public or private residential housing,
- describe the kind of support desired from DOE,
- provide an action plan,
- promote participation in the Partnership program, and
- consider community-wide expansion through DOE's Rebuild America program.

To obtain an agreement form, or for more information, call the Energy Efficiency and Renewable Energy Clearinghouse (EREC), 1-800-DOE-EREC (363-3732), or write EREC, P.O. Box 3048, Merrifield, VA 2216-0121. Additional information is available on the World Wide Web home page of DOE's Office of Energy Efficiency and Renewable Energy (<http://www.eren.doe.gov>), Office of Building Technology, State and Community Programs.



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